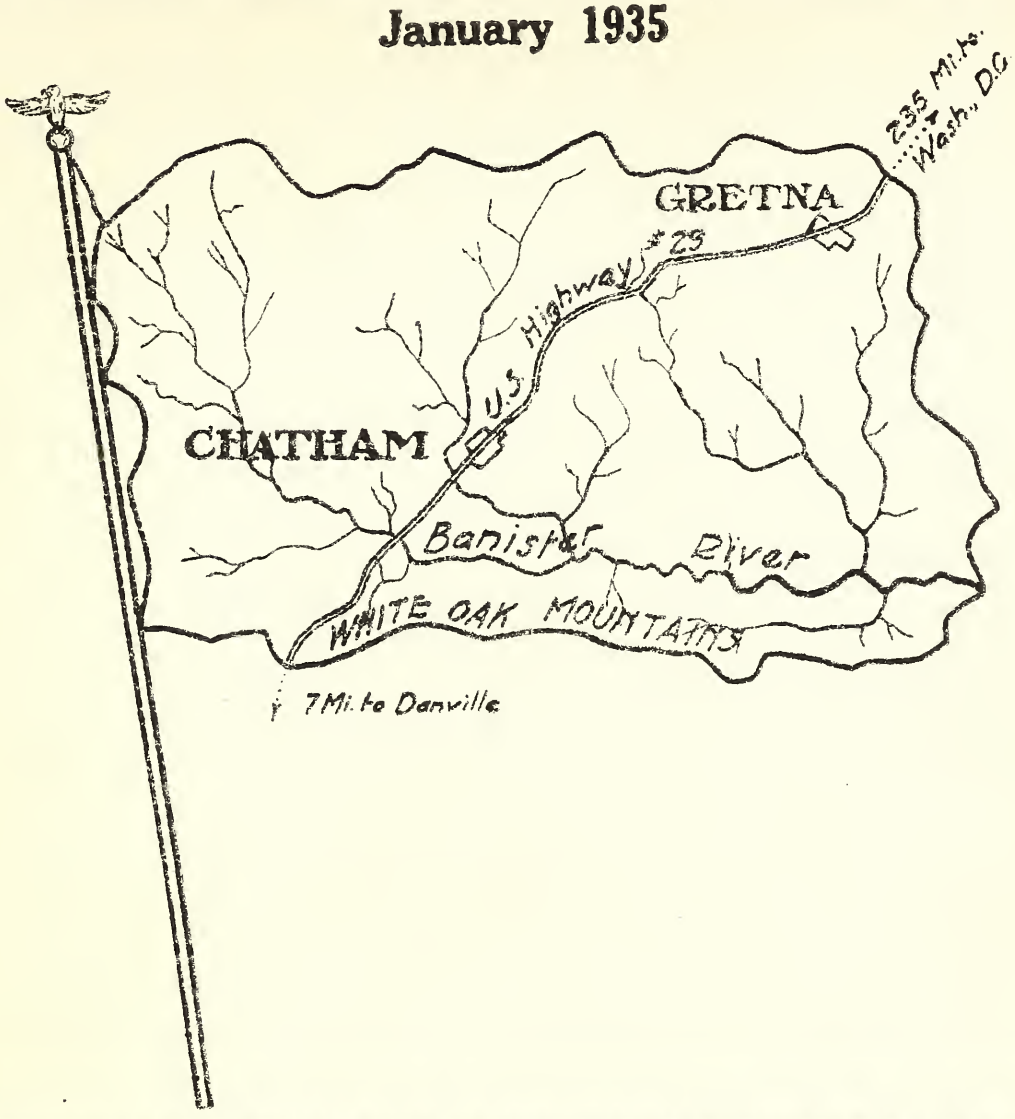
January 1935



Banister River Banner

SOIL EROSION SERVICE
U.S.
DEPARTMENT OF THE INTERIOR

VOLUME 1 NUMBER 6

CHATHAM, VIRGINIA

SOIL EROSION DEPARTMENT

COOPERATIVE AGREEMENTS

Just a little over five months ago the Soil Erosion Service of the Banister River area secured its first agreement. Since that time the work has moved steadily on. Agreements have been signed on 448 farms covering 57,528 acres of land. Very few complaints have arisen from our cooperators. The reason for this, is the care taken in planning the agreements.

All the area has been mapped, and when we receive an invitation our soil experts visit the farm and secure such information as the type of soil, amount of erosion, the per cent of the slope, and any other information that will be helpful to the Erosion Specialist. With this information in hand, the Erosion Specialist then decides the purposes for which the field is best suited. When a study has been made of each field, the farm is planned as a whole. A rotation is decided upon that will take care of the money crop as well as the food and feed for the family and stock. When the plans have been completed the farmer is asked to check the plans to see that they are correct. If he feels that by carrying out the practices and the plans his farm will be improved and that he will be able to make a better living, he signs the agreement.

We wish to express our appreciation to those cooperators who have made a study and planned their farms with reference to the Soil Erosion Program before the specialist arrives. To you who are expecting to cooperate with the Soil Erosion Service and have not yet reached an agreement, we invite you to spend some time in studying and planning your farm before the specialist reaches you. By following this procedure a more satisfactory and beneficial program will be planned for your farm, since the Soil Erosion Program is entirely a cooperative program between the farmer and the Soil Erosion Service.

If anyone has had an invitation in for some time and no one has paid you a visit, please notify us.

FORESTRY DEPARTMENT

The Forestry Department reports increasing activities. Large shipments of trees are being received at intervals and the planting of badly eroded fields is progressing rapidly. To date (Dec. 22nd) the total allotted amount of trees have been planted on twenty-five farms. This planting has required 71,500 trees and has actually covered 76.1 acres which have been removed from cultivation. In every case where a cooperator has expressed an opinion, it has been one of satisfaction and pride in the newly acquired trees. The limited number of forest tree seedlings available will limit the amount of planting the Forestry Department can accomplish this winter, however, a large number of trees will be available in the fall of 1935 and it is expected that all allocations will be filled.

The Forestry Department has planted 221 gullies to date and completed this work on all gullies in which check dams have been completed. The above gully planting does not include seeding on artificially constructed terrace outlets.

AGRONOMY DEPARTMENT

The year 1934 having passed into history, we are wishing our cooperators and other friends of the Soil Erosion Service, a most happy and prosperous New Year.

Since this is a time for making resolutions, we are asking our cooperators to join with us in a resolution to do everything possible this year to check erosion on the farms of the area. From the Agronomy or farm management standpoint these efforts might be directed along the following lines:

(1) Remove steep and eroding land from cultivation and let it go back to permanent sod or forest. Lespedeza and adapted grasses and clover will rebuild these lands and enable them to make a profit for the owner.

(2) Establish a systematic rotation on all cultivated fields. A good rotation should give the maximum erosion control, should furnish sufficient grain and hay for farm needs, and, except on bright tobacco land, should include lime and legumes to add humus and fertility.

(3) Let it become a habit to farm on the contour and wherever possible divide the fields into strips so that the whole field will not be in a cultivated crop at one time. Many farmers are finding that some type of strip cropping is one of the easiest and cheapest way to control erosion. Small grain and all hay crops are adapted to seeding in contour strips to break the runoff of soil and water down the slopes.

* * * * * * * * *

The S.E.S. has gotten in a few more lime spreaders which have already been loaned to cooperators. It is almost imperative that these spreaders be kept busy every day possible so that they can be passed on to others wanting them. Each spreader we have will have to be used by approximately forty cooperators.

ENGINEERING DEPARTMENT

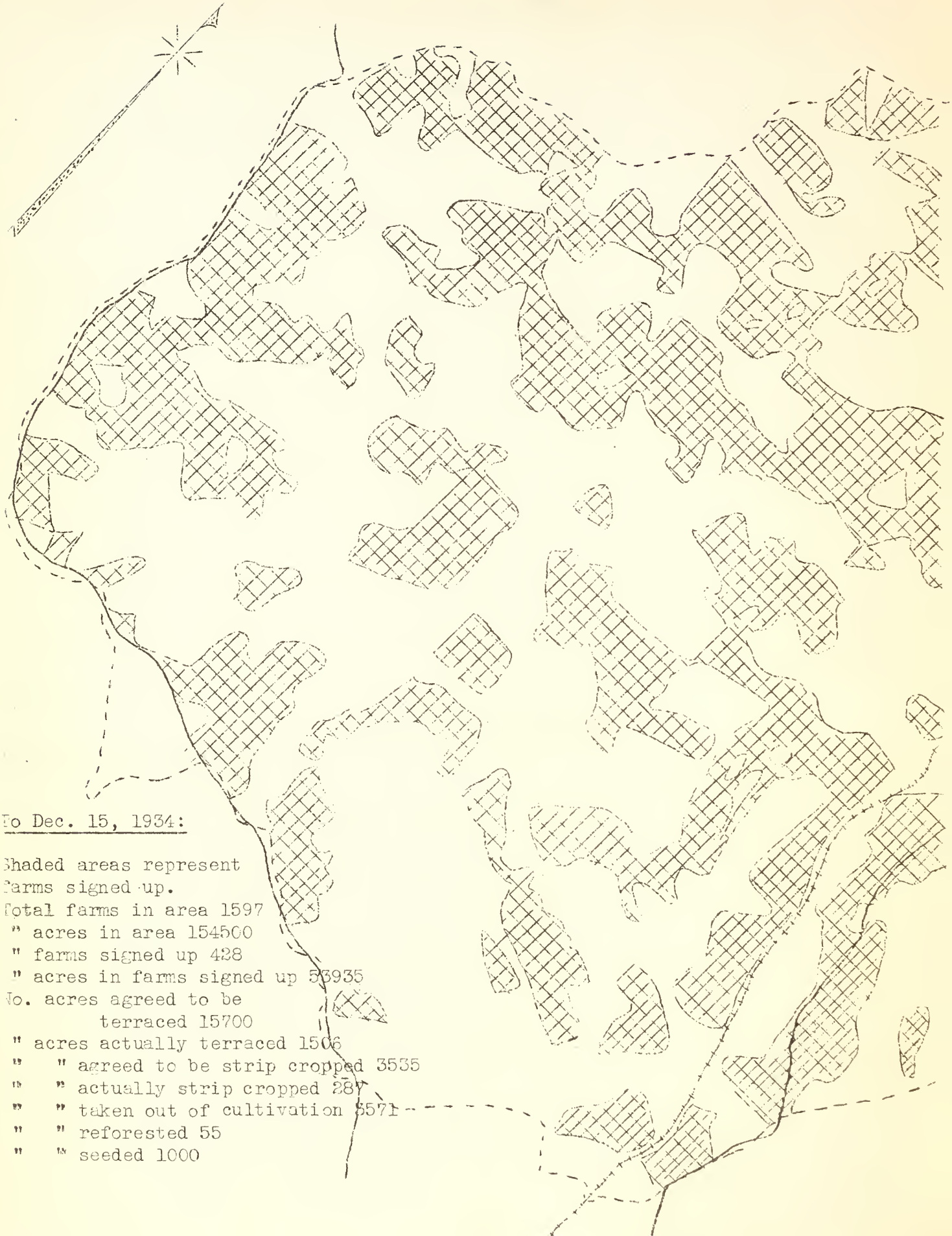
At this season, it is customary to make resolutions for the coming year. Oftentimes these good intentions are soon forgotten or abandoned. This year let us all resolve to prevent soil erosion as far as we possibly can, and live to it. A well grounded plan, religiously followed,, will save you a lot of good land and mean that you will have a better farm for the coming years, and more dollars in your pocket. This is our earnest plea to all of our readers, and we know of no better way to follow up the greeting of "Happiness and Good Cheer Throughout the Year".

Since we began work last summer we have constructed 160 miles of terrace on 83 farms, benefiting 1,550 acres of farm land in the Banister River Area.

Over 4,000 check dams have been built to fill gullies and control terrace outlets. This amount of work has cost a large sum of money. If it is protected as it should be, you will reap the profit.

Recently we have received additional equipment and are now in a position to work much faster than heretofore. In consequence, we will be able to take care of requests for work more quickly, work on more farms, thereby doing our community a greater good.

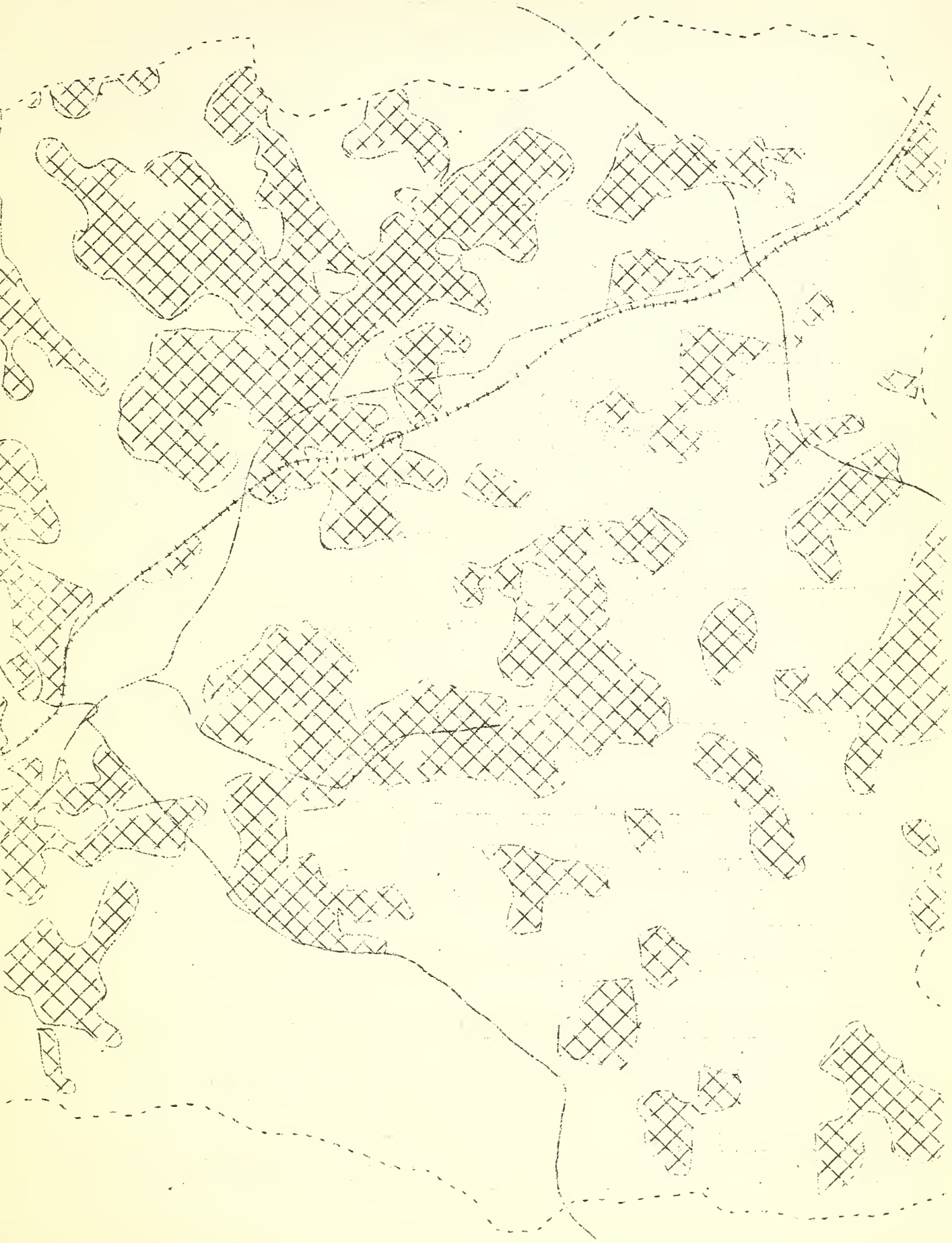
BANISTER RIVER WATERSHED AREA
Soil Erosion Service
Project



To Dec. 15, 1934:

Shaded areas represent
Farms signed up.
Total farms in area 1597
" acres in area 154500
" farms signed up 428
" acres in farms signed up 53935
No. acres agreed to be
terraced 15700
" acres actually terraced 1506
" " agreed to be strip cropped 3535
" " actually strip cropped 287
" " taken out of cultivation 3571
" " reforested 55
" " seeded 1000

IN PITTSYLVANIA COUNTY, VA.
U. S. Department of the Interior
No. 22



SOILS OF THE BANISTER RIVER WATERSHED

Up to date the Soils Department has made a soil and erosion survey of 551 farms in the Watershed.

Below is given a description of the Madison Soil series and something as to its fertility and crop adaptability. This is a continuation of soil articles started by the Soils Department last month.

MADISON SERIES

This is one of the extensive series found in the area. The surface soil ranges from gray-brown to red. The subsoil is friable red clay which contains considerable amount of mica flakes. The soil is derived from quartz mica schist.

Fertility - Madison soils are low in nitrogen. A good way to build this up is to plow under green manuring crops. This will also help to increase the waterholding capacity of the soil and help combat erosion.

Most of the phosphorous found in this soil is unavailable to plants, therefore it should be included in fair amounts in all fertilizers.

The Madison soils have fair amounts of potash but since not all of it is available, most plants will show a response to potash fertilizer.

Only fair amounts of lime are found and a ton or two of ground limestone should be added for growing lime loving plants.

MADISON SANDY LOAM - The surface soil consists of a grayish-brown to gray fine sandy loam 8 to 12 inches deep.

The subsoil is red clay or clay loam, friable, containing a considerable amount of mica flakes giving the soil a greasy feel when rubbed between the fingers.

Crop adaptability - Corn, small grain, hay crops, and other forage crops will do well. Fruits and berries also may be grown. Tobacco may also be grown, but will not do as well as on the lighter sandy soils.

MADISON FINE SANDY LOAM, MIXED PHASE - This represents an eroded type of sandy loam where the surface soil has been removed unevenly, leaving "gall spots" exposed. The surface is quite variable in the texture ranging from gray fine sandy loam to reddish-brown fine sandy loam. The eroded condition of this soil makes it less desirable than the sandy loam type.

The subsoil is the same as that of the other Madison Soils described above.

Crop adaptability - The following crops will do well: corn, small grain, forage crops, fruits and pasture.

MADISON CLAY LOAM - The surface soil is 3 to 6 inches deep, brownish-red to red clay loam. The subsoil is the same as that of the above two types.

This type represents a condition where the gray sandy loam has been removed by erosion leaving the reddish-brown clay loam exposed.

Crop adaptability - Corn, small grain, forage and permanent pastures are recommended. This soil is very erosive and should be protected by strip rotation and terraces. Steep land should be taken out of cultivation.

COLONIAL EROSION CONTROL

George Washington may not have been the first to practice erosion control, but he was among the first in America to acknowledge the ravages of erosion and to attempt to maintain his rich farm lands in their fertile state.

His foresight as a scientific farmer is evidenced by letters on display in the Library of Congress.

Exactly 135 years ago -- four days before his death -- the first President wrote final instructions to his farm overseer, Mr. Anderson, listing erosion control as a major item in the plan of operations.

Washington had three farms, the "Muddy Hole Farm", the "River Farm", and the "Union Farm", and on each soil losses presented a problem. To Anderson he wrote, concerning his Muddy Hole farm:

"The washed and gullied parts of it ought to be levelled and smoothed, and as far as it can be accomplished, covered with litter, straw, weeds, corn stalks, or any other kind of vegitable rubbish, to bind together, and to prevent the earth from gullying."

Not only did Washington realize the necessity of keeping a cover of vegetation -- he termed it "vegitable rubbish" -- on the ground, but he practiced crop rotation and other methods of sound land use, such as keeping eroded lands out of cultivation. The latter practice, along with crop rotation, is among the methods now being advanced by the Soil Erosion Service in thirty watershed demonstration areas over the country.

Similar instructions were outlined by Mr. Washington for his River farm. Referring to Field No. 1, he directed:

".....part is in meadow, and will remain so, and the most broken, washed and indifferent parts is to remain uncultivated, but to be harrowed and smoothed in the spring, and the worst parts thereof (if practicable) be covered with litter, straw, weeds, or any kind of vegitable rubbish to prevent them from running into gullies."

Field No. 2 on his Union Farm, an "indifferent field, washed in some places, gullied in others, and rich in none", was to be "prevented from getting worse, and becoming such eye sores as they now are."

Washington's erosion control measures, while not exactly in line with the most modern methods developed and urged by the Soil Erosion Service, were fundamentally correct, according to H. H. Bennett, Director of the Service. The importance of maintaining a vegetative cover on eroding lands, he pointed out, is one of the salient points in the nation-wide erosion control program now under way.

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He who exhausts the soil in which he has a certain interest is greedy without gain.

.....William Mavor, 1812.

S O I L E R O S I O N S E R V I C E
United States Department of the Interior
Chatham, Va.
Project No. 22

SOIL CONSERVATION

Our soil is our most priceless asset, and it most likely will continue to be. Therefore, it is an economic necessity and a patriotic and moral obligation to preserve this all-important resource that cannot be rebuilt within the expectancy of a human life.

The federal government becoming duly alarmed with the increasing destruction of farm lands from unrestricted washoff has set in operation 31 huge soil erosion demonstration projects in separate sections of the country under supervision of the United States Department of the Interior. One such project was established in Pittsylvania County, Virginia, and covers over 146,000 acres of the Banister watershed.

In our country there is something like 30 million acres of formerly cultivated land destroyed by gullying and deep washing alone. About 4 million acres of bottom lands, formerly cropped, have been rendered essentially useless by a covering of inert material deposited over it and by increased waterflow resulting from silt-choked stream beds. Insignificant that loss is, though, when compared to the loss from that vast area subjected to a more serious type of washing which steals off a layer of soil with each successive rain, sheet erosion. The removal of a thin covering of soil, more or less uniformly, during every rain heavy enough to have runoff is sheet erosion.

Rainwater flowing out of cultivated fields is always muddy, never clear. This discolored washoff is the very fat of the land: Simple deduction and observation indicates what eventually happens where the process is not arrested.

The uncontrolled wastage of our land is what the soil erosion service of the government is out to prevent,- to demonstrate how individual farms can be handled so as to arrest the evil effects of erosion. Work of the soil erosion service also will reduce loss of water from runoff, will minimize the effects of drought, reduce flood hazards, will prevent the covering of bottom lands with unfertile subsoil, stop washouts, prevent the silting of streams and channels, and stop the filling up of expensive reservoirs with farms soils and mud.

Already our nation has permitted the essential destruction and unrestricted erosion on an area of formerly cultivated land exceeding the combined extent of Illinois, Massachusetts and Connecticut. This means that there has been made unfit for profitable husbandry 218,000 farms of 160-acres each.

Virginia is being robbed of its full share. Yearly farmers of the state suffer an estimated loss of $66,000,000 from erosion. That doesn't include the loss to the state of the stupendous damage to highways and the silting of reservoirs, streams, ditches and harbors.

Thousands of Virginia farmers are operating on slopes stripped of the more productive surface layer have only the slimmest of opportunities to make a satisfactory living whether prices are up or down.